

## AIR QUALITY PERMIT

Issued To: Hamilton Rock Products Permit #2712-04  
P.O. Box 961 Administrative Amendment (AA)  
Whitefish, MT 59937 Request Received: 10/24/07  
Department's Decision on AA: 1/17/08  
Permit Final:  
AFS #: 777-2712

An air quality permit with conditions is hereby granted to Hamilton Rock Products (Hamilton) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Permitted Facility

Hamilton owns and operates a portable crushing/screening and washing operation. The original permitted location is in Section 13, Township 30 North, Range 21 West, in Flathead County. Permit #2712-04 applies while operating in any location in the state of Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program or those areas considered tribal lands. Addendum 2 to this permit applies to operations in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

A complete equipment list of the permitted equipment can be found in Section I.A of permit analysis.

#### B. Current Permit Action

On October 24, 2007, Hamilton Rock Products requested an administrative amendment to Permit #2712-03, to obtain an addendum to work in or within 10 km of a PM<sub>10</sub> nonattainment area, as described in the attached Addendum 2, and to clarify existing equipment in the permit. Also, the permit was updated to reflect the current permit language and rule references used by the Department.

### Section II: Limitations and Conditions

#### A. Operational

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher at the Hamilton facility shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. An NSPS-affected crusher is any crusher which was constructed, reconstructed, or modified after August 31, 1983 (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).
2. All visible emissions from any other NSPS-affected equipment at the Hamilton facility shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes. Other NSPS affected equipment would include any grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified after August 31, 1983 (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60,

Subpart 000).

3. All visible emissions from any non-NSPS-affected equipment at the Hamilton facility shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Non-NSPS affected equipment includes, but is not limited to, any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified on or prior to August 31, 1983 (ARM 17.8.304 and ARM 17.8.752).
4. Water and spray bars shall be available and used, as necessary, to maintain compliance with the opacity limitations in Section II.A.1, Section II.A.2, and Section II.A.3 (ARM 17.8.752).
5. Hamilton shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
6. Hamilton shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.752).
7. Crusher production is limited to 150 tons/hour (ARM 17.8.749).
8. Total plant production shall be limited to 1,314,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Diesel generator emissions shall be limited to the following (ARM 17.8.752):

1.9 tons per year (TPY) CO	
0.70 TPY	VOC
8.8 TPY	NO <sub>x</sub>
0.58 TPY	SO <sub>x</sub>
0.63 TPY	Particulate
10. Hamilton shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart 000 (ARM 17.8.340 and 40 CFR 60, Subpart 000).
11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Hamilton, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

#### B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2. After the initial source

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Reporting Requirements

1. If this crushing/screening/washing plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Hamilton shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Hamilton as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
3. Hamilton shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A of this permit.

Production information shall be gathered on a calendar year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). Hamilton shall submit the annual production information annually to the Department by March 1 of each year, which may be submitted with the annual emission inventory (ARM 17.8.505).

4. Hamilton shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include the addition of a new emissions unit, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
5. Hamilton shall document, by month, the total production from the facility. By the 25th day of each month, Hamilton shall calculate the production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM

Section III: General Conditions

- A. Inspection - Hamilton shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Hamilton fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Hamilton of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Hamilton may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include but are not limited to local terrain, meteorological conditions, proximity to residences, etc.
- J. Hamilton shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program.

PERMIT ANALYSIS  
Hamilton Rock Products  
Permit #2712-04

I. Introduction/Process Description

A. Permitted Equipment

Hamilton Rock Products (Hamilton) owns and operates a portable non-metallic mineral processing facility consisting of:

- 1956 Pioneer Twin Roll Crusher, Screen Plant, and Associated Equipment (150 tons per hour (TPH))
- El Russ Washing Plant (5' x 16' with 2-deck screen)
- Backup Diesel Generator (estim. 100 Horsepower (Hp))

B. Process Description

Hamilton uses this crushing/screening plant and associated equipment to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor and passed through the crushers. The crushed materials are then sent to the screens, where materials are separated and conveyed to stockpiles. In addition, Hamilton has a 5'x16' wash plant and associated equipment to wash aggregate for use in various construction operations. For a typical operation setup, materials are loaded into the feeder, conveyed to the wash plant, separated using a 2-deck screen, washed, and conveyed to stockpile for sale and use in construction operations.

C. Permit History

On April 6, 1992, **Permit #2712-00** was issued to Maricorp, Inc. to operate a 1956 Pioneer Model V portable twin roll gravel crusher #CP38-28, and associated equipment. On March 16, 1995, **Permit #2712-01** was issued to Whitefish Sand and Gravel because the crushing plant changed ownership.

On December 26, 1995, Whitefish Sand and Gravel requested that Permit #2712-01 be modified to reflect a change in ownership. Hamilton Rock Products are the owners of the equipment and are operating the crushing facility in Section 13, Township 30 North, Range 21 West, in Flathead County, throughout the winter months (October 1 through March 31). This location is approximately 3 kilometers (km) from the Columbia Falls particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment area. Because this location is within 10 km of the Columbia Falls PM<sub>10</sub> nonattainment area, it was determined that the conditions contained in Permit #2712-01 must be modified, per General Condition I of Permit #2712-01, and controls implemented to limit the impact of the portable crusher's emissions on the nonattainment area. The conditions and reporting requirements are stated in **Addendum 1** of **Permit #2712-02**.

Hamilton Rock Products requested on April 16, 1996, that Permit #2712-02 be modified to allow the crushing operation to operate at this location throughout the entire year. **Permit #2712-03** replaced Permit #2712-02.

D. Current Permit Modification

On October 24, 2007, Hamilton Rock Products requested an administrative amendment to Permit #2712-03, to obtain an addendum to work in or within 10 km of a PM<sub>10</sub> nonattainment area, as described in the attached Addendum 2, and to clarify existing equipment in the permit. Also, the permit was updated to reflect the current permit language and rule references used by the Department of Environmental Quality (Department). **Permit #2712-04** replaces Permit #2712-03 and **Addendum 2** replaces Addendum 1.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonable Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments are included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Hamilton shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Hamilton must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Hamilton shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS), including the following subpart:
  - 40 CFR 60, Subpart OOO - In order for a crushing/screening plant to be subject to NSPS requirements, the facility must meet the definition of an affected facility

and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Since the equipment was constructed prior to the NSPS applicability date, Hamilton is not an NSPS-affected facility under 40 CFR 60, Subpart OOO.

This facility is not currently an NSPS-affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60. However, in the future Hamilton could be considered an NSPS-affected facility under 40 CFR Part 60, and subject to the requirements of Subpart OOO, if they construct, reconstruct, or modify applicable equipment.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits -- When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Hamilton has a PTE greater than 15 tons per year of PM; therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits -- General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits -- Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.



5. ARM 17.8.748 New or Modified Emitting Units -- Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Hamilton of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification -- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2712-04 for Hamilton, the following conclusions were made.

- a. The facility's PTE is less than 100 tons/year for any pollutant.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is not subject to any current NSPS.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that this facility is a minor source with respect to the Title V Operating Permit program and therefore, is not subject to the Title V Operating Permit Program.

### III. BACT Determination

A BACT determination is required for each new or altered source. Hamilton shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

### IV. Emission Inventory -- Permit #2712-04

Emitting Unit	Tons per Year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	CO	VOC	SO <sub>x</sub>
1956 Pioneer Twin Roll Crusher (150 TPH)	0.79	0.35	0.00	0.00	0.00	0.00
Screen (3 @ 150 TPH)	4.34	1.45	0.00	0.00	0.00	0.00
Truck Unloading	0.01	0.01	0.00	0.00	0.00	0.00
Material Transfer	0.57	0.18	0.00	0.00	0.00	0.00
Pile Forming	4.25	2.01	0.00	0.00	0.00	0.00
Bulk Loading	0.001	0.001	0.00	0.00	0.00	0.00
El Russ Wash Plant	1.45	0.48	0.00	0.00	0.00	0.00
Diesel Generator (100 HP)	0.96	0.96	13.53	2.93	1.10	0.88
Haul Roads	12.68	3.60	0.00	0.00	0.00	0.00
<b>Total</b>	<b>25.05</b>	<b>9.04</b>	<b>13.53</b>	<b>2.93</b>	<b>1.10</b>	<b>0.88</b>

#### CRUSHERS - (SCC 3-05-030-03, controlled)

##### **1956 Pioneer Twin Roll Crusher (150 TPH)**

Process Rate: 150 ton/hr 1,314,000 tons/year unrestricted  
Hours of operation: 8760 hr/yr

#### PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)  
Calculations: 0.0012 lbs/ton \* 150 tons/hr = 0.18 lb/hr  
0.18 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.79 ton/yr

#### PM<sub>10</sub> Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)

Calculations:	$0.00054 \text{ lbs/ton} * 150 \text{ tons/hr} =$	0.08 lb/hr
	$0.08 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	0.35 ton/yr

### **SCREENS - (SCC 3-05-020-02,-03, controlled)**

#### **3-Screen Deck (150 TPH)**

Process Rate:	150 ton/hr
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	0.0022 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.0022 \text{ lbs/ton} * 3 \text{ screens} * 150 \text{ ton/hr} =$	0.99 lb/hr
	$0.99 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	4.34 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor:	0.00074 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.00074 \text{ lbs/ton} * 3 \text{ screens} * 150 \text{ tons/hr} =$	0.33 lbs/hr
	$0.33 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	1.45 tons/yr

### **Material Transfer (SCC 3-05-020-06, controlled)**

#### **Truck Unloading (1)**

Process Rate:	150 ton/hr
Number of Loads	1 Loads
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	1.60E-05 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.000016 \text{ lbs/ton} * 150 \text{ ton/hr} * 1 \text{ Loads} =$	0.002 lb/hr
	$0.002 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	0.01 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor:	1.60E-05 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.000016 \text{ lbs/ton} * 150 \text{ ton/hr} * 1 \text{ Loads} =$	0.002 lb/hr
	$0.002 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	0.01 ton/yr

#### **Material Transfer (6)**

Process Rate:	150 ton/hr
Number of Transfers	6 Transfers
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	0.00014 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.00014 \text{ lbs/ton} * 150 \text{ ton/hr} * 6 \text{ Transfers} =$	0.13 lb/hr
	$0.13 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	0.57 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor:	4.60E-05 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	$0.000046 \text{ lbs/ton} * 150 \text{ tons/hr} * 6 \text{ Transfers} =$	0.04 lb/hr
	$0.04 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	0.18 ton/yr

#### **Pile Forming (2)**

Process Rate:	150 ton/hr
Number of Piles	2 Piles
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	0.0032 lbs/ton	(AP-42 Section 13.2.4, 1/95)
Calculations:	$0.0032 \text{ lbs/ton} * 150 \text{ ton/hr} * 2 \text{ Piles} =$	0.97 lb/hr
	$0.97 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$	4.25 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor:	0.0015 lbs/ton	(AP-42 Section 13.2.4, 1/95)
Calculations:	0.0015 lbs/ton * 150 ton/hr * 2 Piles =	0.46 lb/hr
	0.46 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	2.01 ton/yr

**Bulk Loading**

Process Rate:	150 ton/hr
Number of Loads	1 Load
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	1.6E-06 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	1.6E-06 lbs/ton * 150 ton/hr * 1 Load =	2.4E-04 lb/hr
	2.4E-04 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.001 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor:	1.6E-06 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	1.6E-06 lbs/ton * 150 ton/hr * 1 Load =	2.4E-04 lb/hr
	2.4E-04 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.001 ton/yr

**El Russ Wash Plant**

Maximum Process Rate:	150	ton/hr	ESTIMATED
Daily Process Rate	3600	tons/day	
Hours of Operation:	8760	hr/yr	

PM Emissions:

Emission Factor:	0.0022	lb/ton	(AP-42, Section 11.19.2-2, 8/2004)
Calculations:	0.0022 lb/ton * 150 ton/hr =	0.33 lb/hr	
	0.0022 lb/ton * 3600 tons/day =	7.92 lb/day	
	0.33 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	1.45 ton/yr	

PM-10 Emissions:

Emission Factor:	0.00074	lb/ton	(AP-42, Section 11.19.2-2, 8/2004)
Calculations:	0.00074 lb/ton * 150 ton/hr =	0.11 lbs/hr	
	0.00074 lb/ton * 3600 tons/day =	2.66 lb/day	
	0.11 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.48 ton/yr	

**Haul Roads**

Vehicle miles traveled (estimate):	5 VMT/day
Control Efficiency is included in Emission Factor	

PM Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons):	13.90 Lbs/VMT	(AP-42 Section 13.2.2, 12/03)
Calculations:	5 VMT/day * 13.90 Lbs/VMT =	69.5 lb/day
		12.68 ton/yr

PM<sub>10</sub> Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons):	3.95 Lbs/VMT	(AP-42 Section 13.2.2, 12/03)
Calculations:	5 VMT/day * 3.95 Lbs/VMT =	19.75 lb/day
		3.60 ton/yr

**Diesel Generator (100 HP)**

Horsepower =	100 Hp	1 KW = 1.341 hp	
Generator Size =	75 KW	1 Hp-hr = 7000 BTU	
BTU/hr =	0.70 MMBtu/hr	Hours of Operation:	8760 hr/yr
PM Emissions			

Emission Factor:	0.31 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 0.31 lbs/MMBtu =	0.22 lb/hr
	0.22 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.96 ton/yr

#### PM<sub>10</sub> Emissions

Emission Factor:	0.31 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 0.31 lbs/MMBtu =	0.22 lb/hr
	0.22 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.96 ton/yr

#### NO<sub>x</sub> Emissions

Emission Factor:	4.41 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 4.41 lbs/MMBtu =	3.09 lb/hr
	3.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	13.53 ton/yr

#### VOC Emissions

Emission Factor:	0.36 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 0.36 lbs/MMBtu =	0.25 lb/hr
	0.25 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	1.10 ton/yr

#### CO Emissions

Emission Factor:	0.95 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 0.95 lbs/MMBtu =	0.67 lb/hr
	0.67 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	2.93 ton/yr

#### SO<sub>x</sub> Emissions 0.05 % sulfur

Emission Factor:	0.29 lbs/MMBtu	(AP-42, 3.3-1, 10/96)
Calculations:	0.70 MMBtu/hr * 0.29 lbs/MMBtu =	0.20 lb/hr
	0.20 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.88 ton/yr

## V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM<sub>10</sub>. Due to exceedances of the national standards for PM<sub>10</sub>, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM<sub>10</sub>. As a result of this designation, EPA required the Department and the City-County Health Departments submit PM<sub>10</sub> State Implementation Plans (SIPs). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM<sub>10</sub> emissions.

Permit #2712-04 is issued for the operation of a portable crushing/screening plant to be originally located in Section 13, Township 30 North, Range 21 West, in Flathead County, Montana. This area is classified as attainment/unclassified for all ambient air quality standards, although it is within 10 km of the Columbia Falls and the Whitefish PM<sub>10</sub> nonattainment areas.

As a portable source, this facility would operate on an intermittent and temporary basis and any effects on air quality will be minor and short-lived. Addendum 2 is for operation of the portable crushing/screening plant at sites in or within 10 km of certain PM<sub>10</sub> nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential

impact on the nonattainment areas and will protect the national ambient air quality standards.

## VI. Air Quality Impacts

Permit #2712-04 and Addendum 2 applies while operating in any location in the state of Montana, except those areas having a Department approved permitting program or areas considered tribal lands. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

Addendum 2 will cover the operations of this portable crushing/screening plant during the winter months (October 1 through March 31) while operating in Section 13, Township 30 North, Range 21 West, in Flathead County, Montana (which is within 10 km of the Columbia Falls and Whitefish PM<sub>10</sub> nonattainment areas), or any other location in or within 10 km of a PM<sub>10</sub> nonattainment areas approved by the Department in writing. Additionally, the facility will also be allowed to operate in or within 10 km of certain PM<sub>10</sub> nonattainment areas during the summer months (April 1 through September 30).

In the view of the Department, the amount of controlled emissions (Permitted Allowable Emissions) generated by this facility will not exceed any set ambient standard in any given area of operations.

Addendum 2  
Hamilton Rock Products  
Permit #2712-04

An addendum to air quality Permit #2712-04 is hereby granted to Hamilton Rock Products (Hamilton) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment:

Hamilton owns and operates a portable non-metallic mineral processing facility consisting of:

- 1956 Pioneer Twin Roll Crusher, Screen Plant, and Associated Equipment (150 tons per hour (TPH))
- El Russ Washing Plant (5' x 16' with 2-deck screen)
- Backup Diesel Generator (estim. 100 Horsepower (Hp))

II. Seasonal and Site Restrictions – **Winter and Summer Seasons**

Addendum 2 applies to the Hamilton facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) - The only location in or within 10 km of a PM<sub>10</sub> nonattainment area where Hamilton may operate is:
1. Columbia Falls/Whitefish area – Section 13, Township 30 North, Range 21 West; and
  2. Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1-September 30) – Hamilton may operate at any location in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas.
- C. Hamilton shall comply with the limitations and conditions contained in Addendum 2 to Permit #2712-04 while operating in or within 10 km of any of the previously identified PM<sub>10</sub> nonattainment areas. Addendum 2 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 2 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational Limitations and Conditions

1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749).
2. Hamilton shall not cause or authorize to be discharged into the atmosphere from any equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).



3. Hamilton shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).
4. Hamilton shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
5. Hamilton shall not operate more than one crusher at any one time. Total crusher production shall not exceed 3,600 tons per day (ARM 17.8.749).
6. Hamilton shall not operate more than one set of screens at any one time. Total material screened shall not exceed 10,800 tons per day (ARM 17.8.749).

#### B. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Production information for the sites covered by this addendum must be maintained for 5 years and submitted to the Department upon request. The information must include (ARM 17.8.749):
  - a. Tons of material crushed by each crusher at each site (including amount of recirculated/rerun material),
  - b. Tons of material screened by each screen at each site (including amount of recirculated/rerun material),
  - c. Tons of bulk material loaded at each site (production),
  - d. Daily hours of operation at each site,
  - e. Gallons of diesel used by each generator at each site,
  - f. Hours of operation and sizes for each generator at each site,
  - g. Fugitive dust information consisting of the total miles driven on unpaved roads for all plant vehicles.
3. Hamilton shall document, by day, the total crushing production. Hamilton shall sum the total crushing production during the previous day to verify compliance with the limitation in Section III.A.5. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).

4. Hamilton shall document, by day, the total screening production. Hamilton shall sum the total screening production during the previous day to verify compliance with the limitation in Section III.A.6. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).

Addendum 2 Analysis  
Hamilton Rock Products  
Permit #2712-04

I. Permitted Equipment

Hamilton Rock Products (Hamilton) owns and operates a portable non-metallic mineral processing facility consisting of:

- 1956 Pioneer Twin Roll Crusher, Screen Plant, and Associated Equipment (150 tons per hour (TPH))
- El Russ Washing Plant (5' x 16' with 2-deck screen)
- Backup Diesel Generator (estim. 100 Horsepower (Hp))

II. Source Description

Hamilton uses this crushing/screening plant and associated equipment to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor and passed through the crushers. The crushed materials are then sent to the screens, where materials are separated and conveyed to stockpiles. In addition, Hamilton has a 5'x16' wash plant and associated equipment to wash aggregate for use in various construction operations. For a typical operation setup, materials are loaded into the feeder, conveyed to the wash plant, separated using a 2-deck screen, washed, and conveyed to stockpile for sale and use in construction operations.

III. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

- A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- B. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
1. Written notice of intent to transfer location and proof of public notice are sent to the Department;
  2. The source will operate in the new location for a period of less than 1 year; and
  3. The source will not have any significant impact on any nonattainment area or any Class I area.

#### IV. Emission Inventory

Source	Lbs/Day					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
1956 Pioneer Twin Roll Crusher (150 TPH)	4.3	1.9				
Screen (3 @ 150 TPH)	23.8	8.0				
Truck Unloading	0.1	0.1				
Material Transfer	3.0	1.0				
Pile Forming	23.2	11.0				
Bulk Loading	0.0	0.0				
El Russ Wash Plant	7.9	2.7				
Diesel Generator	5.2	5.2	74.1	6.1	16.0	4.9
Haul Road	69.5	19.8				
<b>TOTAL</b>	<b>137.0</b>	<b>49.7</b>	<b>74.1</b>	<b>6.1</b>	<b>16.0</b>	<b>4.9</b>

#### V. Existing Air Quality

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>). Due to exceedances of the national standards for PM<sub>10</sub>, the cities of Columbia Falls and Whitefish have been designated by EPA as nonattainment for PM<sub>10</sub>. As a result of this designation, the EPA required the Department of Environmental Quality and the Flathead City-County Health Department to submit the Columbia Falls and Whitefish PM<sub>10</sub> State Implementation Plans (SIPs) in November, 1991. The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM<sub>10</sub> emissions.

This permit is for a portable crusher plant to be located in Section 13, Township 30 North, Range 21 West in Flathead County, near Columbia Falls, Montana and within 10 km of the Whitefish nonattainment area. Based on modeling results, it is predicted that the crushing plant will not significantly impact the Columbia Falls PM<sub>10</sub> nonattainment area or cause an exceedance of any ambient air quality standard. In addition, the more stringent operating conditions in Addendum 2 will further minimize the crusher's impacts on the nonattainment area.

#### VI. Air Quality Impacts

The Department determined, based on ambient air modeling, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

## VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, Montana Code Annotated (MCA), the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

## VIII. Environmental Assessment

The current permit action is an administrative amendment and does not constitute a state action; therefore, an environmental assessment is not required for the proposed project.

Permit Analysis Prepared by: Christine Weaver

Date: December 19, 2007